

WHAT IS CLAIMED IS:

1 1. A pumping system comprising:
2 a pump barrel that is adapted to be placed into a well casing;
3 a plunger reciprocatably positioned within the pump barrel, wherein the
4 plunger has an open top end, a bottom end, and a traveling valve at the bottom end;
5 a connector coupled to the plunger below the top end; and
6 a rod coupled to the connector, wherein the rod is translatable to
7 reciprocate the plunger within the pump barrel using an upstroke and a downstroke, and
8 wherein the top end of the plunger is adapted to direct particulate into the plunger and
9 away from the pump barrel upon each upstroke.

1 2. A system as in claim 1, wherein the top end of cylinder is inwardly
2 tapered, and wherein the connector is disposed within the cylinder.

1 3. A system as in claim 1, wherein the connector has at least one
2 through hole to permit fluids to be moved upwardly through the connector and the
3 plunger upon each downstroke of the plunger.

1 4. A system as in claim 1, wherein the pump barrel has a bottom end
2 and a standing valve in the bottom end.

1 5. A method for pumping fluids from the ground, the method
2 comprising:

3 placing a pumping system into the ground, wherein the pumping system
4 comprises a pump barrel, a plunger reciprocatably positioned within the pump barrel,
5 wherein the plunger has an open top end, a bottom end, and a traveling valve at the
6 bottom end, and a connector coupled to the plunger below the top end; and
7 reciprocating the plunger within the pump barrel with an upstroke and a
8 downstroke, and directing particulate into the plunger through the open top end and away
9 from the pump barrel upon each upstroke.

1 6. A method as in claim 5, wherein the plunger comprises a cylinder
2 having an inwardly tapered open top end to direct particulate into the cylinder upon each
3 upstroke.

1 7. A method as in claim 5, wherein the plunger has a traveling valve
2 at the bottom end, wherein the pump barrel has a standing valve at a bottom end such that
3 fluids are drawn into the pump barrel through the standing valve upon each upstroke and
4 are forced through the traveling valve upon each downstroke.

1 8. A method as in claim 5, wherein the connector has a through hole
2 such that fluids passing through the traveling valve move through the through hole and
3 upwardly through the plunger.